







460.01	Introduction
460.02	Applicable Statutes and Regulations
460.03	Policy Guidance
460.04	MOUs, MOAs, and IAs
460.05	Technical Guidance
460.06	Permits
460.07	Non-Road Project Requirements
460.08	Exhibits

### Key to Icons

-  Memorandum of understanding, memorandum of agreement, or interagency agreement.
-  Reference document, such as a manual, book, or published article.
-  Permit or application for a permit, approval or certification.
-  Web site.\*

## 460.01 Introduction

This section addresses potential impacts of WSDOT projects on transportation. As defined by SEPA, this element of the built environment includes the movement or circulation of people and goods, specifically transportation systems; vehicular traffic, traffic hazards, and parking; waterborne, rail, and air traffic. FHWA guidance highlights bicycle and pedestrian travel considerations.

Presumably WSDOT projects are designed to improve transportation systems, including multiple modes of travel, so transportation impacts are typically not significant. However,

they need to be considered, and if necessary mitigated, especially construction impacts.

Highway projects can affect transportation in many ways, including conflicts between local traffic and added regional or sub-regional traffic at new or revised access points, increased SOV and HOV volumes, increased safety hazards for bicycles and pedestrians, and increased congestion or interrupted access during construction. This section primarily deals with the impacts of highway projects. Ferry, rail, and aviation projects could have similar impacts, such as traffic congestion and safety hazards, especially during construction.

### (1) Summary of Requirements

SEPA requires consideration of project impacts on transportation as part of the built environment. FHWA policy and guidance includes accommodating bicycles and pedestrians. If parking will be impacted, local jurisdictions' off-street parking regulations may apply. Specific requirements apply to projects affecting ferry facilities, railroads, or airports. See [Section 457.05](#) and [Section 458.05](#) for guidance on related socio-economic or environmental justice impacts.

### (2) Acronyms and Abbreviations

Abbreviations and acronyms used in this section are listed below. Others are found in the general list in the appendix.

EPF	Essential Public Facility
HOV	High Occupancy Vehicle
RPZ	Runway Protection Zone
SOV	Single Occupancy Vehicle
USDOJ	U.S. Department of Justice

\* Web sites and navigation referenced in this section are subject to change. For the most current links, please refer to the online version of the EPM, available through the EAO home page: <http://www.wsdot.wa.gov/eesc/environmental/>

### **(3) Glossary**

**Essential Public Facility** – Defined in the Growth Management Act (RCW 47.06.140), to include airports, and state and state or regional transportation facilities among other public facilities that are typically difficult to site. Improvements to facilities and services of statewide significance identified in the statewide multi-modal plan are considered essential state public facilities.

**Transportation Facilities of Statewide Significance** – Defined in RCW 81.104.015 to include the interstate highway system, interregional state principal arterials including ferry connections that serve statewide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, and high-capacity transportation systems serving regions.

**Vehicular** – Refers to public, private vehicles; single and high occupancy vehicles, freight, bicycles, and pedestrians.

## **460.02 Applicable Statutes and Regulations**

### **(1) National Environmental Policy Act/ State Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC Section 4231, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations are given due weight in project decision-making. The only transportation impact required to be analyzed under NEPA is impacts on bicycle and pedestrian traffic (23 CFR 652).

The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local

actions. The SEPA guidelines list transportation as an element of the built environment, including: transportation systems, movement or circulation of people and goods; vehicular traffic, traffic hazards, and parking; waterborne, rail, and air traffic.

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on NEPA/SEPA procedures, see [Section 410](#) through [Section 412](#).

### **(2) Americans with Disabilities Act**

The Americans with Disabilities Act (ADA), Public Law 336-101, enacted July 26, 1990, prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, State and local government services, public accommodations, commercial facilities, and transportation. It also mandates the establishment of TDD/telephone relay services.

Public transportation services are not covered by regulations for Title II, subtitle A, which prohibits discrimination on the basis of disability in all services, programs, and activities provided to the public by state and local governments (Federal Register, July 26, 1991).

Regulations for Title III, CFR July 1, 1994, which prohibits discrimination on the basis of disability in places of public, includes standards for accessible design establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility (Appendix A to Part 36).

An amendment to Title II and II regulations suspends the requirements for detectable warnings at curb ramps, hazardous vehicle areas, and reflecting pools until July 26, 2001 (Federal Register, November 23, 1998).

The text of the statute and implementing regulations are accessible via the U.S. Department of Justice (USDOJ) web site:

 <http://www.usdoj.gov/>

Click on Alphabetical List of Components, then Civil Rights Division, then Special Topics, then ADA Home Page, then ADA Regulations and Technical Assistance, then ADA legal documents.

Or by direct link:

 <http://www.usdoj.gov/crt/ada/publicat.htm>

### **(3) FHWA Regulations**

FHWA regulations covering federally-aided projects (23 CFR 652) include the following policy on accommodation of bicycles and pedestrians: “The safe accommodation of pedestrians and bicyclists should be given full consideration during the development and construction of federal-aid highway projects. The special needs of the elderly and the handicapped shall be considered in all federal-aid projects that include pedestrian facilities. Where current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort shall be made to minimize the detrimental effects on all highway users who share the facility. On highways without full control of access where a bridge deck is being replaced or rehabilitated, and where bicycles are permitted to operate at each end, the bridge shall be reconstructed so that bicycles can be safely accommodated when it can be done at a reasonable cost. Consultation with local groups of organized bicyclists is to be encouraged in the development of bicycle projects.”

See 23 CFR 652.13 for planning considerations and 23 CFR 652.15 for design and construction criteria. The rules are online via FHWA’s web site:

 <http://www.fhwa.dot.gov/>

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then Federal-Aid Policy Guide, then 23 CFR, then 652, then 652.11 and 652.13.

Or by direct link:

 <http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0652.htm>

### **(4) FAA Regulations**

FAA Regulations Part 77 (January 1975) include guidance relevant to design of road projects affecting navigable airspace. **Exhibit 460-1** illustrates FAA notice requirements related to highways. See also WSDOT’s *Design Manual* (M-22-01), Figure 240-2.

### **(5) State Statutes**

#### **(a) Vehicular Traffic**

**Essential Public Facilities** – Under the Growth Management Act (GMA) (RCW 47.06), a thorough public review is required prior to siting Essential Public Facilities (EPFs), such as state or regional transportation facilities. No local comprehensive plan or development regulation may preclude the siting of essential public facilities, but they can impose conditions on the project.

**Facilities of Statewide Significance** – RCW 81.104.105 requires WSDOT to plan for improvements to transportation facilities and services of statewide significance in the statewide multimodal plan, in cooperation with regional transportation planning organizations, counties, cities, transit agencies, public ports, private railroad operators, and private transportation providers.

**City Streets as Part of State Highways** – RCW 47.24 identifies design and environmental considerations for city streets that cross or are considered part of a state highway.

**Design standards** – WAC 468-18-040 regulates design standards for rearranged county roads, frontage roads, access roads, intersections, ramps and crossings, including realignments as part of a road project.

#### **(b) Bicycle/Pedestrian Traffic**

RCW 47.30 requires WSDOT and local agencies to spend transportation funding on paths and trails.

### **(c) Aviation**

**General Aviation Airport Siting – Incompatible Uses** – RCW 36-71A-510 identifies adjacent land uses that are incompatible with general aviation airports.

### **(d) Rail**

**DNR Easements** – RCW 47.12.026 grants WSDOT authority to obtain an easement at no charge for waters in DNR jurisdiction that are required to relocate the operating tracks of any railroad that will be displaced by the acquisition of such railroad property for state highway purposes.

## **(6) Local Regulations**

If the project provides parking, the local jurisdiction's zoning, road standards, off-street parking regulations, and essential public facilities (EPF) standards will apply. If a parking facility is being removed or replaced as a result of the road project, the local regulations also must be considered. Early coordination with local jurisdictions on any parking area that will need to be replaced or reconstructed is recommended.

## **460.03 Policy Guidance**

### **(1) Washington Transportation Commission**

The Transportation Commission's Policy Catalog (Section 4.3) contains specific policies aimed at providing mobility choices. Policy principles include "promoting modal connections to provide seamless travel and reducing congestion." Service objectives include:

- Improve mobility within congested highway corridors.
- Improve and develop urban transportation services, facilities, and programs...to respond to growth, and to meet local and

regional economic development, congestion, energy, and clean air objectives.

Several other Transportation Commission policies on urban mobility, non-motorized travel, intermodalism, and transportation may be relevant to transportation impacts.

The policies and action strategies are available via WSDOT's home page:



<http://www.wsdot.wa.gov/>

Click on Transportation Commission, then **Reports and Plans**, then Policy Catalog.

Or by direct link:



<http://www.wsdot.wa.gov/commission/ReportsPlans/Catalog.pdf>

### **(2) Federal Policies – Bicycles and Pedestrians**

The following policy statement was drafted by USDOT in response to Section 1202(b) of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21):

1. Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met:
  - Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right-of-way or within the same transportation corridor.
  - The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding 20 per cent of the cost of the larger transportation project.

- Where sparsity of population and other factors indicate an absence of need.
2. In rural areas, paved shoulders should be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day.



*A USDOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure*

## 460.04 MOUs, MOAs, and IAs

None identified.

## 460.05 Technical Guidance

### (1) WSDOT Guidance

WSDOT has no Discipline Report checklist for analyzing transportation impacts; however, bicycle and pedestrian facility impacts are covered in the Social Element Discipline Report (see checklist, [Exhibit 457-1](#)), and traffic impacts are included in the Economic Element Discipline Report (see checklist, [Exhibit 457-2](#)). General guidance for various types of transportation impacts is provided in this section.

Useful information may be obtained from WSDOT's Environmental GIS Workbench, a GIS interface for internal WSDOT use only. It has over 60 layers of environmental or natural resource management data. The program works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets relevant to vehicle traffic include state highways by WSDOT region, public park and ride lots, rest areas, ferry routes, railroads, and abandoned railroads. WSDOT users can access these data sets at:

w:\Data\GIS\GISOSC\GEODATA\maps\500K\DOT\_EAO\

For a list of current data sets, see WSDOT's environmental web site:



<http://www.wsdot.wa.gov/eesc/environmental/>

Click on Information, then WSDOT GeoData Catalog.

Or by direct link:



<http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

### (2) Vehicular Traffic

The SEPA process requires analysis of vehicular impacts in the following general areas: intersection/access point, volumes of exiting and entering vehicular traffic from surface streets, transit components/lanes, bicycle and pedestrian accommodations, access for disabled people, and traffic control devices.






Project managers are advised to review the impacts of the proposed project on adjacent surface streets to make sure the system can adequately and safely collect and distribute any new traffic loads resulting from new or revised access. Potential impacts on the following should be identified and documented, along with mitigation for significant impacts:

- Any new congestion points; congestion points that would be eliminated or reduced.
- Traffic detours or diversions.
- Safety hazard (accident frequency related to trip volume).
- Transit routes.
- Ramp metering and queuing impacts (interstate highways).
- Surface street conditions that would affect traffic entering or exiting traffic (interstate highways).

WSDOT's Design Manual (M22-01) is the primary reference for safety and vehicular traffic issues. See particularly sections on sight distance, roadside safety, traffic barriers, impact attenuation systems, construction work zone traffic control strategies, and safety rest areas.


The documents listed below provide additional guidance for early design and identification of potential adverse environmental impacts.




-  *WSDOT Roadside Manual* (M25-30).
-  *WSDOT Roadside Classification Plan* (M25-31).
-  *WSDOT HOV Direct Access Design Guide (Draft)* (M22-98).
-  *A Guide for Transportation Landscape and Environmental Design*, American Association of State Highway and Transportation Officials, 1991.
-  *Procedure for Analysis and Design of Weaving Sections – A User's Guide*. Jack E. Leisch, 1985.

In the future, the emission of greenhouse gases (such as carbon dioxide) that leads to global climate change may be considered a secondary impact from the construction of transportation infrastructure. Transportation projects that include alternative modes of transportation, such as mass transit and bicycle/pedestrian facilities, could have a positive impact in reducing greenhouse gas emissions.

Although emissions of carbon dioxide from the combustion of vehicle fuels is currently unregulated, check with WSDOT's air quality unit for any additional regulations, policy changes, or environmental stewardship opportunities. For additional information see the WSDOT web site at:

 <http://www.wsdot.wa.gov/eesc/environmental/>  
Click on **Air/Acoustics/Energy**.

**Or by direct link:**

 <http://www.wsdot.wa.gov/regions/Northwest/SpecialSvc/environmental/aae/default.htm>

Also, see the USEPA web site for information on global warming at:

 <http://www.epa.gov/globalwarming/>  
Click on Emissions, then National.

**Or by direct link:**

 <http://www.epa.gov/globalwarming/emissions/national/index.html>

### **(3) Parking**

Parking issues may include impacts to public or private parking adjacent to the highway right-of-way, and interim impacts such as construction parking, staging, and access. Local jurisdictions, especially those under GMA mandates, take the issue of parking seriously. They should be consulted early in project development to identify possible impacts, particularly if significant parking would be eliminated by a highway project and there is not adequate space for replacement parking. Parking impacts affecting local businesses and/or low-income or minority populations should be addressed as socio-economic impacts (see [Section 457.05](#)).

### **(4) Bicycles and Pedestrians**

#### **(a) FHWA**

FHWA Technical Advisory T6640.8A (October 1987) gives the following guidelines for preparing environmental documents, specifically considerations relating to pedestrians and bicyclists.

Where pedestrian or bicycle facilities or indications of use are identified, the draft EIS should discuss the current and anticipated use of the facilities, potential impacts, and proposed measures, if any, to avoid or reduce adverse impacts to the facility(ies) and its users.

Where new facilities are proposed as a part of a highway project, the EIS should include sufficient information to explain the basis for providing the facilities (e.g., proposed bicycle facility is a link in the local plan or sidewalks will reduce project access impact to the community). The final EIS should identify the facilities to be included in the preferred alternative. Where the preferred alternative would sever an existing major route for non-motorized transportation traffic, the proposed project needs to provide a reasonably alternative route or demonstrate that such a route exists (23 USC 109(n)). To the fullest extent possible, this needs to be described in the final EIS. This guidance is online via FHWA's home page:

 <http://www.fhwa.dot.gov/>

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

 <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

### **(b) WSDOT Design Manual**

See the *Design Manual* (M 22-1) for guidance, particularly Chapter 1020, Bicycle Facilities, and Chapter 1025, Pedestrian Facilities. Other sections include information applicable to bicycle and pedestrian facilities, including shoulders on urban roads.

### **(5) Access for Persons with Disabilities**

See the Access Board's web site at:

 <http://www.access-board.gov/>

USDOJ's ADA Technical Assistance Program provides up-to-date information about the ADA and how to comply with its requirements. Technical assistance materials are accessible via the USDOJ web site:

 <http://www.usdoj.gov/>

Click on Alphabetical List of Components, then Civil Rights Division, then Special Topics, then ADA Home Page, then Technical Assistance Program or ADA Regulations and Technical Assistance Materials.

Or by direct link:

 <http://www.usdoj.gov/crt/ada/adahom1.htm>

### **(6) Waterborne, Rail, and Air Traffic**

Road projects typically have little impact on waterborne (ferries/shipping), rail, or air transportation. Potential impacts to be considered include disruption of local or regional access, dust, noise, and water quality, particularly during construction. The following special provisions apply.

**Ferries** – When a highway project is adjacent to or may impact a ferry facility, the Coast Guard, and potentially the US Army Corps of Engineers may require review under several different permits. See **Section 431.06** for water-related permits.

**Airports** – Any proposed highway construction or alteration in the vicinity of a public or military airport will require early coordination with WSDOT's Aviation Planning Division. Potential issues range from FAA height requirements, runway protection zones (RPZs), general clear zone requirements, and approved landscape/vegetation near the designated clear zones and access.

**Railroads** – WSDOT's *Design Manual* (Chapter 930) includes several standards applicable when a highway project crosses a railroad at grade or at a different elevation.

## **460.06 Permits**

Depending on the location of the road project and how it may impact local traffic or parking the following local permits may be required:

- Grading permit
- Detour and haul road agreements

There are no direct permits related to impacts upon waterborne, rail, or air traffic. However, it is advisable to contact the appropriate agencies (Washington State Ferry Division, Federal Railroad Administration, or the FAA) for any potential conflicts that need to be addressed during the environmental analysis.

## **460.07 Non-Road Project Requirements**

Non-road projects are generally subject to the same policies, procedures, or permits that apply to road projects. The mostly likely transportation impact of non-road projects is changes in the traffic flow and circulation around existing operational facilities. Early environmental screening should identify any parking or traffic conflicts, both short-term (during construction) and long-term (ongoing operations).

The State Transportation Commission's Policy 4.3.6 regarding ferry system parking states: "Parking policies and facilities directly affect the traffic mix and service levels on each Washington State Ferries (WSF) route, and thereby impact the need for future vessel acquisitions. Policies and facilities also influence local and regional traffic volumes, traffic patterns, and land use development."

## **460.08 Exhibits**

*Exhibit 460-1* – FAA Notice Requirement Related to Highways.



## **FAA Notice Requirement Related to Highways**

The following FAA Notice requirements are excerpts from; Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace, published January 1975.

### **SUBPART B — Notice of Construction or Alteration**

§77.13(a)(2) – A notice is required for any proposed construction or alteration that would be of greater height than an imaginary surface extending outward and upward at one of the following slopes –

- (i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway more than 3,200 feet in actual length.
- (ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport with its longest runway no more than 3,200 feet in actual length.
- (iii) 25 to 1 for a horizontal distance of 5,000 feet from the nearest landing and takeoff area of each heliport, available for public use and listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement; is under construction and is the subject of a notice or proposal on file with the FAA and except for military heliports, it is clearly indicated that that heliport will be available for public use, or operated by a Federal Military agency.

§77.13(a)(3) – Notice is required for any proposed construction or alteration of any highway, railroad, or other traverse way for mobile objects if a greater height than the standards of 77.13(a)(1) or (2) after their height has been adjusted upward by one of the following:

- 17 feet for an Interstate highway that is part of the National System of Military and Interstate Highways,
- 15 feet for any other public roadway,
- 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road,
- 23 feet for a railroad.

For a waterway or any other traverse way, an amount equal to the height of the highest mobile object that would normally use it.

### **FAA NOTICE REQUIREMENT RELATED TO HIGHWAYS**

